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EXAMINER	
SIEDLER, DOROTHY S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/686,127	**Applicant(s)** SAID ET AL.	
	Examiner Dorothy Sarah Siedler	**Art Unit** 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *5 and 13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-12 and 14-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the amendment filled August 21, 2007. Claims 1-22 are pending. Claims 5, and 13 canceled, claims 1,7-9, 12 and 19 are amended, and claims 20-22 are added.

Response to Arguments

Applicant's arguments filed August 21, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that Accessibility information is non-textual, semantic information that indicates non-verbal aspects of the textual communication, such as tone of voice and emotional content, for example (Remarks page 9)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8,9,19,21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites, "wherein the translation step includes the use of automatic speech recognition of the first input and the second input to produce the electronic format, the first input including verbal information, and the second input including non-verbal information" however this presents a logical error. The second input, being non-verbal input, cannot be recognized by an ASR system, since ASR systems are designed specifically for the recognition of speech, i.e. verbal information, only.

Claim 9 recites, "wherein said translation step includes the use of sign language recognition of the first stage input and the second stage input to produce the electronic format, the first input including verbal information, and the second input including non-verbal information." however this also produces a logical error. A sign language recognition system is capable of recognizing gestures alone, not speech.

In view of the aforementioned ambiguities, claims 8 and 9 are interpreted as "wherein said translating step includes the use of speech recognition of the first input, the first input including verbal information, and the second input including non-verbal information" and, "wherein said translating step includes the use of sign language recognition of the second input, the first input including verbal information, and the second input including non-verbal information", respectively. This interpretation used throughout the remaining of this office action.

Claim 19 recites the limitation “the speech input” and "the gestures input" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites, “wherein the same medium comprises automatic speech recognition” however this claim, which incorporates the limitations of claim 19, is ambiguous. The logical error associated with claim 8 also applies to this claim. The second input, being non-verbal input, cannot be recognized by an ASR system, since ASR systems are designed specifically for the recognition of speech, i.e. verbal information, only. In addition, the new limitation recited in claim 21 seems to contradict the second limitation of claim 19, which states, “translating the speech input using automatic speech recognition and the gestures input using sign language recognition”. It is unclear as to whether the first and second input will be processed by the same medium or separate mediums, and to what order this processing occurs.

Claim 22 recites, “wherein the same medium comprises sign language recognition”, however this claim, which incorporates the limitations of claim 19, is ambiguous. The logical error associated with claim 9 also applies to this claim. A sign language recognition system is capable of recognizing gestures alone, not speech. In addition, the new limitation recited in claim 22 seems to contradict the second limitation of claim 19, which states, “translating the speech input using automatic speech recognition and the gestures input using sign language recognition”. It is unclear as to whether the first and second input will be processed by the same medium or separate mediums, and to what order this processing occurs.

In view of the aforementioned ambiguities, claims 21 and 22 are interpreted as "translating the verbal input using automatic speech recognition" and "translating the non-verbal input using sign language recognition", respectively. This interpretation used throughout the remaining of this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-17 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Galanes*** (2003/0130854).

As per claim 1, ***Galanes*** discloses a method of input conversion to output, said conversion method comprising:

Entering a first input and a second input ([0053], *multimodal input*);

Translating the first input and the second input into an electronic format ([0053] and [0049], *multimodal input is recognized*);

Converting the electronic format into standard XML encoded with accessibility information ([0049], *the XML is extended to include multimodal recognition functions (accessibility information)*);

Galanes does not explicitly disclose transforming the standard XML encoded with accessibility information into individual version of XML dependent on desired output, and utilizing a rendering engine to modify the individual version of XML into a format for the output. However, ***Galanes*** does disclose utilizing a rendering engine to modify XML into a format for the output ([0049] and [0056], *recognized input is rendered as text for display*). ***Galanes*** also states that the markup language extensions disclosed can be used with any other SGML-derived markup ([0050]). In addition, XML is a general-purpose markup language that is extensible, i.e. it enables its users to define their own tags. This functionality enables users to share data across different information systems, or format data to reach a user defined purpose.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to transform the standard XML encoded with accessibility information into individual version of XML dependent on desired output, and utilize a rendering engine to modify the individual version of XML into a format for the output in ***Galanes***, since one of ordinary skill in the art has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of using available tools for modification of input data for a specific user defined purpose.

As per claim 2, ***Galanes*** the conversion method of claim 1, wherein said entering step includes speaking ([0027]).

As per claim 3, ***Galanes*** the conversion method of claim 1, wherein said entering step includes gesturing ([0027]).

As per claim 4, ***Galanes*** the conversion method of claim 1, wherein said entering step includes writing ([0027]).

As per claim 6, ***Galanes*** the conversion method of claim 1, wherein said entering step includes semantic information ([0027], spoken input is entered).

As per claim 7, ***Galanes*** the conversion method of claim 1, wherein said entering step includes providing formatting and structure for text ([0027], *in conjunction with speech recognition, a pointing device is used, for example, to indicate the fields for data entry*).

As per claim 8, ***Galanes*** the conversion method of claim 2, wherein said translating step includes the use of automatic speech recognition of the first input to produce the electronic format ([0027]), the first input including verbal information ([0053], *input speech*), and the second input including non-verbal information ([0053], *speech input in conjunction with multiple multimodal inputs*).

As per claim 9, ***Galanes*** the conversion method of claim 3, wherein said translating step includes the use of sign language recognition of the second input to produce the electronic format ([0027]), the first input including verbal information, and the second input including non-verbal ([0053], *input speech*), and the second input including non-verbal information ([0053], *speech input in conjunction with multiple multimodal inputs*).

As per claim 10, ***Galanes*** the conversion method of claim 1, however ***Galanes*** does not explicitly disclose wherein the individual version of XML is XHTML for desired output. However, ***Galanes*** does disclose that XHTML is a well-known markup language ([0041]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use XHTML as the individual version on XML in ***Galanes***, since one of ordinary skill in the art has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of using available tools for modification input data for a specific user defined purpose.

As per claim 11, ***Galanes*** the conversion method of claim 1, however ***Galanes*** does not explicitly disclose wherein the individual version of XML is VoiceXML for desired output. However, ***Galanes*** does disclose that XHTML is a well-known markup language ([0004]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use VoiceXML as the individual version on XML in ***Galanes***, since one of ordinary skill in the art has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of using available tools for modification input data for a specific user defined purpose.

As per claim 12, ***Galanes*** the conversion method of claim 1, wherein the accessibility information includes non-verbal information ([0049], *the XML is extended to include multimodal recognition functions (accessibility information)*).

As per claim 14, ***Galanes*** the conversion method of claim 11, wherein the desired output is synthesized speech ([0049]).

As per claims 15,16 and 17, ***Galanes*** the conversion method of claim 12, however ***Galanes*** does not disclose wherein the desired output is virtual sign language, electronic Braille, or electronic large print. However, ***Galanes*** does disclose that the system is functional for users with disabilities ([0028]). ***Galanes*** also discloses that the system includes devices such as a display screen and a touch sensitive pad ([0040]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have output in the form of virtual sign language, electronic Braille, or electronic large print in ***Galanes***, since it would enable users with disabilities to more easily interact with the device.

As per claim 19, ***Galanes*** discloses a method of input conversion to output, said conversion method comprising:

Entering a first input including verbal information and a second input including non-verbal information, the second input being entered in parallel with the first input, the second input being entered via a same medium as the first input, the same medium being one of a visual medium and an audial medium ([0037 and [0053], *a computing device, which includes a camera and a microphone, receives multimodal input, including speech (verbal information) and information entered through the keyboard (non-verbal information)*);

Translating the speech input using automatic speech recognition and the gestures input using sign language recognition into an electronic format ([0053] and [0049], *multimodal input, including speech and gestures, are recognized*)

Converting the electronic format into standard XML encoded with accessibility information ([0049], *the XML is extended to include multimodal recognition functions (accessibility information)*).

Galanes does not explicitly disclose transforming the standard XML encoded with accessibility information into individual version of XML dependent on desired output, and utilizing a rendering engine to modify the individual version of XML into a format for the output. However, ***Galanes*** does disclose utilizing a rendering engine to modify XML into a format for the output ([0049] and [0056], *recognized input is rendered as text for display*). ***Galanes*** also states that the markup language extensions disclosed can be used with any other SGML-derived markup ([0050]). In addition, XML is a general-purpose markup language that is extensible, i.e. it enables its users to define their own tags. This functionality enables users to share data across different information systems, or format data to reach a user defined purpose.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to transform the standard XML encoded with accessibility information into individual version of XML dependent on desired output, and utilize a rendering engine to modify the individual version of XML into a format for the output in ***Galanes***, since one of ordinary skill in the art has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of using available tools for modification of input data for a specific user defined purpose.

As per claim 20, ***Galanes*** discloses a method of input conversion to output, said conversion method comprising:

Entering a first input including text information and a second input including semantic information ([0037] and [0053], *multimodal data is received, including information entered through a keyboard (text) and speech (semantic information))*;

Translating the first input and the second input into electronic format ([0053] and [0049], *multimodal input is recognized*);

Converting the electronic format into standard XML encoded with accessibility information ([0049], *the XML is extended to include multimodal recognition functions (accessibility information))*;

Galanes does not explicitly disclose transforming the standard XML encoded with accessibility information into individual version of XML dependent on desired output, and utilizing a rendering engine to modify the individual version of XML into a format for the output. However, ***Galanes*** does disclose utilizing a rendering engine to modify XML into a format for the output ([0049] and [0056], *recognized input is rendered as text for display*). ***Galanes*** also states that the markup language extensions disclosed can be used with any other SGML-derived markup ([0050]). In addition, XML is a general-purpose markup language that is extensible, i.e. it enables its users to define their own tags. This functionality enables users to share data across different information systems, or format data to reach a user defined purpose.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to transform the standard XML encoded with accessibility information into individual version of XML dependent on desired output, and utilize a rendering engine to modify the individual version of XML into a format for the output in ***Galanes***, since one of ordinary skill in the art has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of using available tools for modification of input data for a specific user defined purpose.

As per claim 21, ***Galanes*** discloses the method of claim 19, wherein the verbal input is input using automatic speech recognition ([0037] and [0053], *multimodal data is received, including information entered through a keyboard (text) and speech (semantic information)*).

As per claim 22, ***Galanes*** discloses the method of claim 19, wherein the non-verbal input is input using sign language recognition ([0037] and [0053], *multimodal data is* *received, including information entered through a keyboard (text) and speech (semantic information))*.

Claim18 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Galanes*** in view of ***Lemlouma*** ("NAC: A Basic Core for the Adaptation and Negotiation of Multimedia Services" 2001).

Galanes discloses the method of claim 1, however ***Galanes*** does not disclose whrein said transforming step includes the use of extensible stylesheet language transformations to transform the standard XML encoded with accessibility information into the individual version of XML dependent on desire output. However, XML is a general-purpose markup language that is extensible, i.e. it enables its users to define their own tags. This functionality enables users to share data across different information systems, or format data to reach a user defined purpose. In addition, ***Lemlouma*** discloses that extensible stylesheet language transformations, or style sheets, are commonly used for adaptation of XML models (section 1 Introduction, last paragraph).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to the use of extensible stylesheet language transformations to transform the standard XML encoded with accessibility information into the individual version of XML dependent on desire output in ***Galanes***, since one of ordinary skill in the art has good reason to pursue the options within his or her technical grasp in order to achieve the predictable result of using available tools for modification of input data for a specific user defined purpose.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dorothy Sarah Siedler whose telephone number is 571-270-1067. The examiner can normally be reached on Mon-Thur 9:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSS

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PRIMARY EXAMINER